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EXAMINER

HUANG, CHENG YUAN

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/553,022	<b>Applicant(s)</b> ANGELA ET AL.	
	<b>Examiner</b> CHENG HUANG	<b>Art Unit</b> 1787	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-21 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-13 and 15-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 19 July 2010 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2-13 and 15-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

4. Claim 16 recites “base layer is between the first cover layer and the second cover layer”, which does not appear to be supported by the originally filed specification.

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***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 2-5, 8-11, 13, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demeuse (U.S. Patent No. 6,165,599) in view of Crass et al. (U.S. Patent No. 4,786,533).

8. Regarding claim 16, Demeuse teaches a multilayered transparent biaxially oriented polypropylene film (col. 3, lines 7-9, lines 65-67, col. 4, line 36) which comprises a base layer (polypropylene/hydrocarbon layer, col. 3, lines 7-9, lines 65-67, col. 4, line 36) and a first cover layer (functional layer, col. 3, lines 65-67, col. 4, lines 57-59), wherein the base layer has a hydrocarbon resin (col. 3, lines 54-63) and the first cover layer has a cold sealing adhesive coating on its outer surface (cold seal adhesive layer as functional layer, col. 5, lines 10-15), a second cover layer, wherein the second cover layer is applied to the diametrically opposite surface of the base layer (second functional layer on the other side of core, col. 3, lines 64-67)

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and the base layer is between the first cover layer and the second cover layer (first functional layer, core, second functional layer, col. 3, lines 64-67).

9. Demeuse fails to teach wherein the first cover layer comprises 95 to <100 weight-percent propylene polymers, in relation to the weight of the cover layer.

10. However, Crass et al. teaches a multilayered transparent polypropylene film (See Abstract) wherein the first cover layer is comprises about 93.2 to 99.0 weight percent propylene polymers (col. 3, lines 33-41), which overlaps the claimed range of 95 to <100 weight-percent propylene polymers, in relation to the weight of the cover layer.

11. It would have been obvious to one of ordinary skill in the art at the time of the invention to include propylene polymers in first cover layer of Demeuse in an amount including those of the claimed range for stability in rigidity (Crass et al., col. 1, lines 18-21 and 40-41).

12. Regarding claim 17, Demeuse teaches wherein the first cover layer has a thickness approximately 2.5 to 3.8  $\mu\text{m}$  (col. 4, lines 25-27), which overlaps the claimed range of greater than 0.1  $\mu\text{m}$ .

13. Regarding claim 2, Demeuse teaches wherein the base layer contains an isotactic polypropylene (col. 3, lines 14-20). While Demeuse does not explicitly disclose the melting point of the isotactic polypropylene, it is inherent that the melting point of isotactic polypropylene is not less than about 140°C, as evidenced by Crass et al. (col. 2, lines 16-22), which meets the claimed range of 155-165°C.

14. Regarding claim 3, Demeuse teaches wherein the base layer contains the hydrocarbon resin in a quantity of up to about 15 weight percent (col. 2, lines 54-59), which overlaps the claimed range of 5 to 20 weight-percent, in relation to the weight of the base layer.

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15. Regarding claim 4, Demeuse wherein the hydrocarbon resin contains a non-hydrogenated styrene polymer, a methylstyrene- styrene copolymer, cyclopentadiene polymer, an  $\alpha$ -pinene polymer,  $\beta$ -pinene polymer, or terpene polymers and hydrogenated compounds thereof, or hydrated  $\alpha$ -methylstyrene-vinyl toluene copolymer or mixtures thereof (col. 3, lines 29-55).

16. Regarding claim 5, Demeuse teaches wherein the hydrocarbon resin has a softening point of less than about 140°C (col. 3, lines 58-59), which overlaps the claimed range of 100 to 160°C.

17. Regarding claim 6, Demeuse teaches wherein the first cover layer is synthesized from propylene terpolymers (col. 5, lines 6-8).

18. Demeuse fails to teach wherein the propylene copolymers and terpolymers having a propylene content of at least 80 weight-percent in relation to the polymer.

19. However, Crass et al. teaches a multilayered transparent polypropylene film (See Abstract) wherein the first cover layer is synthesized from propylene copolymers or propylene terpolymers or mixtures of these polymers, wherein the propylene copolymers and terpolymers has a propylene content of about 93.2 to 99.0 weight percent (col. 3, lines 33-41), which falls within the claimed range of at least 80 weight-percent in relation to the polymer.

20. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose the propylene content of the propylene copolymers and terpolymers of Demeuse, including those of the claimed range for stability in rigidity (Crass et al., col. 1, lines 18-21 and 40-41).

21. Regarding claim 8, Demeuse teaches wherein the second cover layer made of polyolefinic polymers (col. 4, lines 58-61 and col. 5, lines 6-8).

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22. Regarding claim 9, Demeuse wherein a release layer is applied to the surface diametrically opposite the first cover layer as the outer layer (col.4, lines 58-61 and col. 5, lines 16-18), whose surface is deemed to have a low adhesion in relation to cold sealing coatings since it is of a releasing nature.

23. Regarding claim 10, Demeuse teaches wherein the release layer is a release film and/or a second coextruded cover layer (col. 5, lines 16-18, col. 6, lines 28-32).

24. Regarding claim 11, Demeuse teaches wherein the base layer contains an antistatic agent (col. 6, lines 60-61).

25. Regarding claim 13, Demeuse teaches wherein the first cover layer contains antiblocking agent (col. 6, line 61).

26. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Demeuse (U.S. Patent No. 6,165,599) in view of Crass et al. (U.S. Patent No. 4,786,533) and further, in view of Wilkie et al. (U.S. Patent No. 5,482,780).

27. Demeuse as modified by Crass et al. is relied upon as disclosed above.

28. Regarding claim 7, Demeuse as modified by Crass et al. fails to teach the surface of the first cover layer being treated using corona, plasma, or flame.

29. However, Wilkie teaches a multilayered biaxially oriented polypropylene film (col. 5, lines 1-7) wherein the surface of the first cover layer is pretreated using corona or flame (col. 4, lines 27-31).

30. It would have been obvious to one of ordinary skill in the art at the time of the invention to using corona or flame treatment on the surface of the first cover layer of Demeuse as modified

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by Crass et al. to improve the bond between the surface of the first cover layer and the cold sealing adhesive (Wilkie et al., col. 4, lines 24-27).

31. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demeuse (U.S. Patent No. 6,165,599) in view of Crass et al. (U.S. Patent No. 4,786,533) and further, in view of Murschall et al. (U.S. Patent No. 5,436,041).

32. Demeuse as modified by Crass et al. is relied upon as disclosed above.

33. Regarding claim 12, Demeuse as modified by Crass et al. fails to teach neutralization agents and stabilizers.

34. However, Murschall et al. teaches the polypropylene film wherein all layers of the film contain neutralization agents and stabilizers (col. 7, lines 57-63).

35. It would have been obvious to one of ordinary skill in the art at the time of the invention to include neutralization agents in the film of Demeuse as modified by Crass et al. to control pH.

36. Regarding claim 15, Demeuse as modified by Crass et al. fails to teach wherein said antistatic agent is tertiary aliphatic amine.

37. However, Murschall et al. teaches the polypropylene film wherein said antistatic agent is tertiary aliphatic amine (col. 8, lines 3-7).

38. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a tertiary aliphatic amine in the film of Demeuse as modified by Crass et al. for eliminating the effects of static electricity.



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39. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demeuse (U.S. Patent No. 6,165,599) in view of Crass et al. (U.S. Patent No. 4,786,533) and further, in view of Fatica et al. (U.S. Patent No. 6,033,786), Dallman et al. (U.S. Patent No. 4,572,854), and Murschall et al. (U.S. Patent No. 5,436,041).

40. Demeuse as modified by Crass et al. is relied upon as disclosed above.

41. Regarding claim 18, Demeuse as modified by Crass et al. teaches wherein the first cover layer has a thickness in the range approximately 2.5 to 3.8  $\mu\text{m}$  (about 0.1 to 0.15 mil, Demeuse, col. 4, lines 25-27), which overlaps the claimed range of from 0.3 to 3  $\mu\text{m}$ .

42. Demeuse as modified by Crass et al. fail to explicitly disclose neither the thickness of the second cover layer nor the total thickness of the film.

43. However, Fatica et al. teaches a multilayered transparent biaxially oriented polypropylene film (See Abstract) wherein the second cover layer has a thickness of approximately 0.073 to 8.8  $\mu\text{m}$  (functional layer is between about 1.25 and 43.5% the thickness of the core layer which is about 0.23 to 0.8 mil, col. 7, lines 8-18), which encompasses the claimed range of from 0.5 to 2  $\mu\text{m}$ .

44. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose the thickness as taught by Fatica et al. for the first cover layer of Demeuse as modified by Crass et al. for flexibility in food packaging.

45. Dallmann et al. teaches wherein the cold sealing adhesive coating has a thickness of between 1 and 3 microns (col. 2, line 66-col. 3, line 1).

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46. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose the thickness as taught by Dallmann et al. for the cold sealing adhesive coating of Demeuse for controlling cost (Dallmann et al., col. 2, lines 66-67).

47. Given the thickness of the layers as disclosed above, and in addition to the thickness of the base layer of Demeuse to be approximately 5.8-22.8  $\mu\text{m}$  (about 0.23 to 0.9 mil, col. 4, lines 23-25), the film has a total calculated thickness of approximately 9 to 38  $\mu\text{m}$ , which falls within the claimed range of from 4 to 60  $\mu\text{m}$ .

48. Regarding claim 19, Demeuse as modified by Crass et al. fail to explicitly disclose the thicknesses of the first cover layer, second cover layer, and the total film.

49. However, Fatica et al. teaches a multilayered transparent biaxially oriented polypropylene film (See Abstract) wherein the first and second cover layers each have a thickness of approximately 0.073 to 8.8  $\mu\text{m}$  (functional layer is between about 1.25 and 43.5% the thickness of the core layer which is about 0.23 to 0.8 mil, col. 7, lines 8-18), which encompasses the claimed range of from 0.5 to 2  $\mu\text{m}$ .

50. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose the thickness as taught by Fatica et al. for the first and second cover layers of Demeuse as modified by Crass et al. for flexibility in food packaging.

51. Dallmann et al. teaches wherein the cold sealing adhesive coating has a thickness of between 1 and 3 microns (col. 2, line 66-col. 3, line 1).

52. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose the thickness as taught by Dallmann et al. for the cold sealing adhesive coating of Demeuse for controlling cost (Dallmann et al., col. 2, lines 66-67).

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53. Given the thickness of the layers as disclosed above, and in addition to the thickness of the base layer of approximately 5.8-22.8  $\mu\text{m}$  of Demeuse to be (about 0.23 to 0.9 mil, col. 4, lines 23-25), the film has a total calculated thickness of approximately 6.9 to 43  $\mu\text{m}$ , which encompasses the claimed range of from 6 to 25 $\mu\text{m}$ .

54. Regarding claim 20, as set forth in paragraphs 18-20 above, Demeuse in combination with Crass discloses first cover layer wherein the propylene copolymers and terpolymers have a propylene content of at least 80 weight percent in relation to the polymer. Further, Demeuse teaches wherein the first cover layer contains antiblocking agent (Crass, col. 6, line 61).

55. Demeuse as modified by Crass et al., Dallmann et al., and Fatica et al. fails to teach neutralization agents and stabilizers.

56. However, Murschall et al. teaches the polypropylene film wherein all layers of the film, which includes the first cover layer contain neutralization agents and stabilizers (col. 7, lines 57-63).

57. It would have been obvious to one of ordinary skill in the art at the time of the invention to include neutralization agents in the film of Demeuse as modified by Crass et al., Dallmann et al., and Fatica et al. to control pH.

58. Regarding claim 21, Demeuse wherein a release layer is applied to the surface diametrically opposite the first cover layer as the outer layer (col.4, lines 58-61 and col. 5, lines 16-18), whose surface is deemed to have a low adhesion in relation to cold sealing coatings since it is of a releasing nature.

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59. Claims 2-6, 8, 11, 13, and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crass et al. (U.S. Patent No. 4,786,533) in view of Dallman et al. (U.S. Patent No. 4,572,854) and Demeuse (U.S. Patent No. 6,165,599).

60. Regarding claim 16, Crass et al. teaches a multilayered transparent polypropylene film (See Abstract) which comprises a base layer (col. 2, lines 16-18), a first cover layer (top layer, col. 3, lines 27-28) wherein the first cover layer is comprises about 93.2 to 99.0 weight percent propylene polymers (col. 3, lines 33-41), which overlaps the claimed range of 95 to <100 weight-percent propylene polymers, in relation to the weight of the cover layer, wherein the base layer has a hydrocarbon resin (col. 2, lines 4-7), a second cover layer, wherein the second cover layer is applied to the diametrically opposite surface of the base layer (second top layer on the other side of base film, col. 3, lines 27-28) and the base layer is between the first cover layer and the second cover layer (first top layer, base film, second top layer, col. 3, lines 27-28).

61. Crass et al. fails to explicitly teach cold sealing adhesive coating on the first cover layer.

62. However, Dallmann et al. teaches a multilayered transparent oriented polypropylene film (See Abstract and Example 2, col. 8, line 35) comprising a base layer (lower first layer B, col. 2, lines 57-58, Fig. 6), a first cover layer (upper first layer B, col. 2, lines 57-58, Fig. 6) having a cold sealing adhesive coating on its outer surface (upper sealable outer layer A, col. 5, line 45-col 6, line 36 and 61-64, Fig. 6), and a second cover layer applied to the diametrically opposite surface of the base layer (second sealing layer A, col. 5, lines 48-49, Fig. 6) and the base layer is between the first cover layer and the second cover layer (Fig. 6).

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63. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a cold sealing adhesive coating on first cover layer of Demeuse for sealing capabilities and scratch resistance (Dallman et al., col. 5, lines 64-67).

64. Crass et al. fails to explicitly disclose the film being biaxially oriented.

65. However, Demeuse teaches a multilayered transparent biaxially oriented polypropylene film (col. 3, lines 7-9, lines 65-67, col. 4, line 36).

66. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose to biaxially orient the film of Crass et al. to improve the tensile strength and tensile modulus (Demeuse, col. 6, lines 37-40).

67. Regarding claim 17, Crass et al. teaches wherein the first cover layer has a thickness about 0.2 to 4  $\mu\text{m}$  (col. 3, line 67-col 4, line 1), which overlaps the claimed range of greater than 0.1  $\mu\text{m}$ .

68. Regarding claim 18, Crass et al. teaches wherein the first cover layer has a thickness in the range about 0.2 to 4  $\mu\text{m}$  (col. 3, line 67-col 4, line 1), which encompasses the claimed range of from 0.3 to 3  $\mu\text{m}$  and the second cover layer having a thickness of about 0.2 to 4  $\mu\text{m}$  (col. 3, line 67-col 4, line 1), which encompasses the claimed thickness of 0.5 to 2  $\mu\text{m}$ . However, there is no disclosure of thickness of cold sealing adhesive coating.

69. Dallmann et al. teaches wherein the cold sealing adhesive coating has a thickness of between 1 and 3 microns (Dallmann et al., col. 2, line 66-col. 3, line 1).

70. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose the thickness as taught by Dallmann et al. for the cold sealing adhesive coating of Crass et al. as modified by Demeuse for controlling cost (Dallmann et al., col. 2, lines 66-67).

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71. Given the thickness of the layers as disclosed above and the total thickness of the first cover layer, second cover layer, and base layer of Crass et al. to be about 15 to 40  $\mu\text{m}$  (col. 3, lines 66-67), and the thickness of the cold sealing adhesive coating of Crass et al. as modified by Demeuse and Dallmann et al., the film has a total calculated thickness of approximately 16 to 43  $\mu\text{m}$ , which falls within the claimed range of from 4 to 60  $\mu\text{m}$ .

72. Regarding claim 19, Crass et al. teaches wherein the first cover layer has a thickness in the range about 0.2 to 4  $\mu\text{m}$  (col. 3, line 67-col 4, line 1), which encompasses the claimed range of from 0.4 to 1.5  $\mu\text{m}$  and the second cover layer having a thickness of about 0.2 to 4  $\mu\text{m}$  (col. 3, line 67-col 4, line 1), which encompasses the claimed thickness of 0.5 to 2  $\mu\text{m}$ . However, there is no disclosure of thickness of cold sealing adhesive coating.

73. Dallmann et al. teaches wherein the cold sealing adhesive coating has a thickness of between 1 and 3 microns (Dallmann et al., col. 2, line 66-col. 3, line 1).

74. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose the thickness as taught by Dallmann et al. for the cold sealing adhesive coating of Crass et al. as modified by Demeuse for controlling cost (Dallmann et al., col. 2, lines 66-67).

75. Given the thickness of the layers as disclosed above and the total thickness of the first cover layer, second cover layer, and base layer of Crass et al. to be about 15 to 40  $\mu\text{m}$  (col. 3, lines 66-67), and the thickness of the cold sealing adhesive coating of Crass et al. as modified by Demeuse and Dallmann et al., the film has a total calculated thickness of approximately 16 to 43  $\mu\text{m}$ , which overlaps the claimed range of from 6 to 25  $\mu\text{m}$ .

76. Regarding claim 20, Crass et al. teaches wherein the first cover layer is synthesized from propylene copolymers or propylene terpolymers or mixtures of these polymers, wherein the

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propylene copolymers and terpolymers has a propylene content of about 93.2 to 99.0 weight percent (col. 3, lines 33-41), which falls within the claimed range of at least 80 weight-percent in relation to the polymer and the first cover layer further contains antiblocking agent (col. 4, lines 8-12).

77. Regarding claim 2, Crass et al. teaches a multilayered transparent polypropylene film (Crass et al., Abstract) wherein the base layer contains an isotactic polypropylene having a melting point of not less than 140°C (col. 2, lines 17-22), which encompasses the claimed range of 155-165°C.

78. Regarding claim 3, Crass et al. teaches wherein the base layer contains the hydrocarbon resin in a quantity of about 10 to 40 weight percent (col. 2, lines 5-9), which overlaps the claimed range of 5 to 20 weight-percent, in relation to the weight of the base layer.

79. Regarding claim 4, Crass et al. teaches wherein the hydrocarbon resin contains a non-hydrogenated styrene polymer, a methylstyrene-styrene copolymer, cyclopentadiene polymer, an  $\alpha$ -pinene polymer,  $\beta$ -pinene polymer, or terpene polymers and hydrogenated compounds thereof, or hydrated  $\alpha$ -methylstyrene-vinyl toluene copolymer or mixtures thereof (col. 2, line 49-col. 3, line 11).

80. Regarding claim 5, Crass et al. teaches a wherein the hydrocarbon resin has a softening point of 60 to 180°C (col. 3, lines 11-12), which encompasses the claimed range of 100 to 160°C.

81. Regarding claim 6, Crass et al. teaches wherein the first cover layer is synthesized from propylene copolymers or propylene terpolymers or mixtures of these polymers, wherein the propylene copolymers and terpolymers has a propylene content of about 93.2 to 99.0 weight

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percent (col. 3, lines 33-41), which falls within the claimed range of at least 80 weight-percent in relation to the polymer.

82. Regarding claim 8, Crass et al. as modified by Demeuse and Dallmann et al. teaches wherein the second cover layer made of polyolefinic polymers (Dallmann et al., col. 5, lines 48-55).

83. Regarding claim 11, Crass et al. teaches wherein the base layer contains an antistatic agent (col. 4, lines 3-6).

84. Regarding claim 13, Crass et al. teaches wherein the first cover layer contains antiblocking agent (col. 4, lines 8-12).

85. Claims 7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crass et al. (U.S. Patent No. 4,786,533) in view of Demeuse (U.S. Patent No. 6,165,599) and Dallman et al. (U.S. Patent No. 4,572,854) and further in view of Wilkie et al. (U.S. Patent No. 5,482,780).

86. Crass et al. in view of Demeuse and Dallmann et al. is relied upon as disclosed above.

87. Regarding claim 7, Crass et al. as modified by Demeuse and Dallmann et al. fails to teach the surface of the first cover layer being treated using corona, plasma, or flame.

88. However, Wilkie teaches a multilayered biaxially oriented polypropylene film (col. 5, lines 1-7) wherein the surface of the first cover layer is pretreated using corona or flame (col. 4, lines 27-31).

89. It would have been obvious to one of ordinary skill in the art at the time of the invention to using corona or flame treatment on the surface of the first cover layer of Crass et al. to



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improve the bond between the surface of the first cover layer and the cold sealing adhesive (Wilkie et al., col. 4, lines 24-27).

90. Regarding claim 9, Crass et al. as modified by Demeuse and Dallmann et al. fails to teach a release layer is applied to the surface diametrically opposite the first cover layer as the outer layer, whose surface has a low adhesion in relation to cold sealing coatings.

91. However, Wilkie et al. teaches a multilayered biaxially oriented polypropylene film (col. 5, lines 1-7) wherein a release layer (the cold release layer) is applied to the surface diametrically opposite the first cover layer as the outer layer (col. 2, line 66-col. 3, line 1), whose surface demonstrates "good to excellent" cold seal release (C.S.R.) (col. 7, lines 45-46) which is a teaching of the surface of the release layer being of low adhesion in relation to cold sealing coatings.

92. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a release layer on the film of Crass et al. for release.

93. Regarding claim 10, Crass et al. fails to teach the release layer is a release lacquer, a release film, or a second coextruded cover layer.

94. However, Crass et al. as modified by Demeuse and Wilkie et al. teaches wherein the release layer (the cold release layer) is a release film and a second coextruded cover layer (Wilkie et al., col. 5, line 37).

95. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crass et al. (U.S. Patent No. 4,786,533) in view of Demeuse (U.S. Patent No. 6,165,599) and Dallman et

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al. (U.S. Patent No. 4,572,854) and further in view of Murschall et al. (U.S. Patent No. 5,436,041).

96. Crass et al. in view of Demeuse and Dallman et al. is relied upon as disclosed above.

97. Regarding claim 12, Crass et al. teaches a multilayered transparent polypropylene film (See Abstract) wherein all layers of the film contain stabilizers (col. 4, lines 3-7).

98. Crass et al. as modified by Demeuse and Dallmann et al. fails to teach neutralization agents.

99. However, Murschall et al. teaches the polypropylene film wherein all layers of the film contain neutralization agents and stabilizers (col. 7, lines 57-63).

100. It would have been obvious to one of ordinary skill in the art at the time of the invention to include neutralization agents in the film of Crass et al. as modified by Demeuse and Dallmann et al. to control pH.

101. Regarding claim 15, Crass et al. as modified by Demeuse and Dallmann et al. fails to teach wherein said antistatic agent is tertiary aliphatic amine.

102. However, Murschall et al. teaches the polypropylene film wherein said antistatic agent is tertiary aliphatic amine (col. 8, lines 3-7).

103. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a tertiary aliphatic amine in the film of Crass et al. as modified by Demeuse and Dallmann for eliminating the effects of static electricity.

104. Claims 2-11, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkie et al. (U.S. Patent No. 5,482,780) in view of Crass et al. (U.S. Patent No. 4,786,533).

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105. Regarding claim 16, Wilkie et al. teaches a multilayered biaxially oriented polypropylene film (col. 5, lines 1-7) made of a base layer (core layer, col. 1, lines 27-29) and at least one first cover layer (second alpha-polyolefinic layer, col. 1, lines 22-23) wherein the cover layer has a cold sealing adhesive coating (cold seal cohesive composition, col. 1, lines 23-25) on the outer surface of the cover layer (col.1, lines 22-25), a second cover layer, wherein the second cover layer is applied to the diametrically opposite surface of the base layer (first alpha-polyolefinic skin layer, col. 1, lines 17-18) and the base layer is between the first cover layer and the second cover layer (second alpha-polyolefinic layer, core layer, first alpha-polyolefinic skin layer, col.1, lines 15-30).

106. Wilkie et al. fails to teach wherein the base layer has a hydrocarbon resin and wherein the first cover layer comprises 95 to <100 weight-percent propylene polymers, in relation to the weight of the cover layer.

107. However, Crass et al. teaches a multilayered transparent polypropylene film (See Abstract) made of a base layer (col. 2, lines 16-18), wherein the base layer has a hydrocarbon resin (col. 2, lines 4-7) and a first cover layer, wherein the first cover layer is comprises about 93.2 to 99.0 weight percent propylene polymers (col. 3, lines 33-41), which overlaps the claimed range of 95 to <100 weight-percent propylene polymers, in relation to the weight of the cover layer.

108. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a hydrocarbon resin in the base layer and propylene polymers in first cover, in an amount including those of the claimed range, of Wilkie et al. to control the modulus of elasticity

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and stability in rigidity of the film (Crass et al., col. 3, lines 19-26, col. 1, lines 18-21 and 40-41).  
(Crass et al., col. 1, lines 18-21 and 40-41).

109. While Wilkie et al. fails to explicitly state the transparency of the film, besides it having “excellent optics” (col. 2, line 30), the film of Wilkie et al. as modified by Crass et al. is reasonably expected to be highly transparent since the invention of Wilkie et al. as modified by Crass et al. comprises similar, if not identical, materials to those of the instantly claimed invention including a base layer comprising biaxially oriented isotactic polypropylene (Wilkie et al., col. 3, line 65-col. 4, line 2, col. 5, line 7) and a cover layer comprising propylene copolymer (Wilkie et al., col. 4, lines 18-21).

110. Regarding claim 2, Wilkie et al. teaches the polypropylene film wherein the base layer contains an isotactic polypropylene (col. 3, lines 65-66).

111. Wilkie et al. does not explicitly state the melting point of the isotactic polypropylene.

112. However, Crass et al. teaches a multilayered transparent polypropylene film (See Abstract) wherein the base layer contains an isotactic polypropylene having a melting point of not less than 140°C (col. 2, lines 17-22), which encompasses the claimed range of 155-165°C.

113. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose the melting point of isotactic polypropylene to include those of the claimed range for the base layer of Wilkie et al. as modified by Crass et al. to control the physical state of the film with respect to temperature.

114. Regarding claims 3, 4, and 5, Wilkie et al. as modified by Crass et al. teaches wherein the base layer contains the hydrocarbon resin in a quantity of about 10 to 40 weight percent (Crass et al., col. 2, lines 5-9), which overlaps the claimed range of 5 to 20 weight-percent, in relation to

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the weight of the base layer and wherein the hydrocarbon resin contains a non-hydrogenated styrene polymer, a methylstyrene- styrene copolymer, cyclopentadiene polymer, an  $\alpha$ -pinene polymer,  $\beta$ -pinene polymer, or terpene polymers and hydrogenated compounds thereof, or hydrated  $\alpha$ -methylstyrene-vinyl toluene copolymer or mixtures thereof (Crass et al, col. 2, line 49-col. 3, line 11) and has a softening point of 60 to 180°C (Crass et al, col. 3, lines 11-12), which encompasses the claimed range of 100 to 160°C.

115. Regarding claim 6, Wilkie et al. teaches the polypropylene film wherein the first cover layer (the cold seal receptive layer, col. 1, lines 22-26) is synthesized from propylene copolymers (col. 4, lines 19-22). Wilkie et al. as modified by Crass et al. also teaches the propylene copolymers having a propylene content of about 93.2 to 99.0 weight-percent (Crass et al., col. 3, lines 33-41), which falls within the claimed at least 80 weight-percent in relation to the polymer.

116. Regarding claim 7, Wilkie et al. teaches the polypropylene film wherein the surface of the first cover layer is pretreated using corona or flame (col. 4, lines 27-31).

117. Regarding claim 8, Wilkie et al. teaches the polypropylene film wherein a second cover layer made of polyolefinic polymers (cold seal release layer, ethylene and propylene, col. 3, line 22).

118. Regarding claim 9, Wilkie et al. teaches the polypropylene film wherein a release layer is applied to the surface diametrically opposite the first cover layer as the outer layer (cold release layer, col. 2, line 66-col. 3, line 1), whose surface demonstrates "good to excellent" cold seal release (C.S.R.) (col. 7, lines 45-46) which is a teaching of the surface of the release layer being of low adhesion in relation to cold sealing coatings.

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119. Regarding claim 10, Wilkie et al. teaches the polypropylene film wherein the release layer is a release film and a second coextruded cover layer (the cold release layer, col. 5, lines 35-37).

120. Regarding claim 11, Wilkie et al. teaches the polypropylene film wherein the base layer contains an antistatic agent (col. 3, lines 52-57).

121. Regarding claim 13, Wilkie et al. teaches the polypropylene film wherein the first cover layer contains antiblocking agent (col. 3, lines 52-57).

122. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkie et al. (U.S. Patent No. 5,482,780) in view of Crass et al. (U.S. Patent No. 4,786,533) and further in view of Murschall et al. (U.S. Patent No. 5,436,041).

123. Wilkie et al. in view of Crass et al. is relied upon as disclosed above.

124. Regarding claim 12, Wilkie as modified by Crass et al. fails to teach wherein all layers of the film contain neutralization agents and stabilizers.

125. However, Murschall et al. teaches the polypropylene film wherein all layers of the film contain neutralization agents and stabilizers (col. 7, lines 57-63).

126. It would have been obvious to one of ordinary skill in the art at the time of the invention to include neutralization agents and stabilizers in the film of Wilkie et al. as modified by Crass et al. to control pH and stability.

127. Regarding claim 15, Wilkie et al. as modified by Crass et al. fails to teach wherein said antistatic agent is tertiary aliphatic amine.

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128. However, Murschall et al. teaches the polypropylene film wherein said antistatic agent is tertiary aliphatic amine (col. 8, lines 3-7).

129. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a tertiary aliphatic amine in the film of Wilkie et al. as modified by Crass et al. for eliminating the effects of static electricity.

### ***Response to Arguments***

130. Applicant's arguments filed 19 July 2010 have been fully considered but they are not persuasive.

131. Applicant amended independent claim 16 to include the propylene content in the first cover layer and have the base layer in between the first cover layer and second cover layer rather than the second cover layer between the base layer and first cover layer.

132. Applicant argues that Demeuse fails to disclose both a first cover layer and a cold sealing adhesive coating.

133. However, as disclosed in the rejection above, given that Demeuse teaches the use of one or more functional layers on at least one of the core's surfaces (col. 3, lines 64-67) which may be referred to as cover layers and wherein a functional layer may be a cold seal adhesive layer (col. 5, lines 10-15), it is clear that Demeuse discloses both a first cover layer and a cold sealing adhesive coating.

134. Applicant argues that Demeuse does not disclose to combine a surface layer devoid of hard resin.

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135. However, there is no requirement in the claims that the surface layer is devoid of hard resin.

136. Applicant argues that Dallman is "a very remote prior art" given that the present invention is a polypropylene film rather than films having a central EVA layer (Dallman) and "confirms that heat seal layers are alternatives to cold seal layers (col. 6)".

137. However, note that while Dallman does not disclose all the features of the present claimed invention, Dallman is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely a cold sealing adhesive coating on a first cover layer for sealing capabilities and scratch resistance, and in combination with the primary reference, discloses the presently claimed invention.

138. Further, applicants' are reminded that according to MPEP 2141.01 (a), a reference may be relied on as a basis for rejection of an applicants' invention if it is "reasonably pertinent to the particular problem with which the inventor is concerned." A reasonably pertinent reference is further described as one which "even though it maybe in a different field of endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." Dallman is, therefore, a reasonably pertinent reference, because it teaches a cold sealing adhesive coating on a first cover layer for sealing capabilities and scratch resistance, which is a function especially pertinent to the invention at hand.



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139. Applicant argues that “Crass also only suggests to use heat seal layers or cold seal layers as alternative cover layers...one cannot derive from crass either a structure with a hard-resin free cover layer in between the hard resin modified base layer and the cold seal layer.”

140. Crass et al. teaches a multilayered transparent polypropylene film (See Abstract) a second cover layer, wherein the second cover layer is applied to the diametrically opposite surface of the base layer (second top layer on the other side of base film, col. 3, lines 27-28). While Crass et al. fails to explicitly teach cold sealing adhesive coating on the first cover layer, Dallmann et al. teaches a multilayered transparent oriented polypropylene film (See Abstract and Example 2, col. 8, line 35) comprising a first cover layer (upper first layer B, col. 2, lines 57-58, Fig. 6) having a cold sealing adhesive coating on its outer surface (upper sealable outer layer A, col. 5, line 45- col 6, line 36 and 61-64, Fig. 6). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a cold sealing adhesive coating on first cover layer of Demeuse for sealing capabilities and scratch resistance (Dallman et al., col. 5, lines 64-67).

141. When Crass is used as a secondary reference, note that while Crass does not disclose all the features of the present claimed invention, Crass is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely propylene content in cover layers, and in combination with the primary reference, discloses the presently claimed invention.

142. Applicant argues that “Wilkie requires that the cold seal layer adjacent to the core”.

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143. However, it is not clear why Applicant states that Wilkie requires that the cold seal layer adjacent to the core given that Wilkie discloses a structure comprising an alpha-polyolefinic core layer with a first alpha-polyolefinic skin layer on one side of the core layer and a second alpha-polyolefinic layer treated with a cold seal cohesive composition on the other side of the layer (Abstract, col. 1, lines 15-30). It is clear that Wilkie does not require the cold seal layer adjacent to the core.

### ***Conclusion***

144. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHENG YUAN HUANG whose telephone number is (571) 270-7387. The examiner can normally be reached on Monday-Thursday from 8 AM to 4 PM.

145. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho, can be reached at 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

146. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. H./

Cheng Yuan Huang

Examiner, Art Unit 1787

August 13, 2010

/Callie E. Shosho/

Supervisory Patent Examiner, Art Unit 1787